Feedback and potential uses of the "Imagine" method: A systemic and predictive analysis of sustainability

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Preoccupation with the environment has gained increasing prominence, reflected in social and political demands for general public participation in the conception ad implementation of long-term strategy for defined geographical or administrative areas. In this context, the Blue Plan has developed, tested and consolidated a method of systemic, predictive and proactive analysis "Imagine", that proposes tools for describing, evaluating and investigating the degree of sustainability of a socio-ecosystem. It is based on a participatory approach that considers local stakeholders and others involved as experts in their area.

In the Noughties at the beginning of this century, the Blue Plan developed, verified and consolidated the *Imagine* method of systemic and predictive analysis of sustainability. With the aim of bringing together stakeholders and others actively involved in a given area, *Imagine* proposes a variety of tools for describing, assessing and exploring the degree of sustainability of a socio-ecosystem in its past, present and future forms. It is based on certain indicators and a participatory approach that assumes that the local people involved are indeed experts in and about the area they are active in.

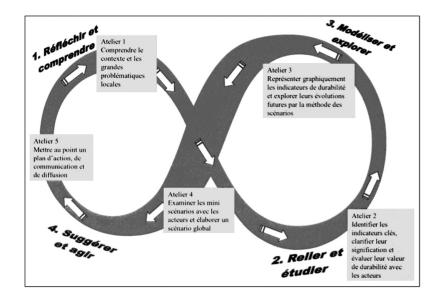
The *Imagine* method was implemented by the Blue Plan, within the framework of coastal development programmes (CDP) initiated by the Action Plan for the Mediterranean (MAP), in Malta (2000-2002), the Lebanon (2002-2003), Algeria (2003-2004), Slovenia (2005) and Cyprus (2006-2007). The role of the Blue Plan in this context was to facilitate and follow up the implementation of the *Imagine* method by local management teams operating in the coastal environments which are the focus of the CDPs. The method could equally well be applied within the framework of the protocol concerning the integrated management of Mediterranean coastal areas (the IGCZ Protocol annexed to the Barcelona Convention that came into effect in 2011) whose objective is to encourage the sustainable management of coastal areas, taking into account their vulnerability and the multiplicity of their users and how they interact.

The ever-increasing concern for the preservation of natural resources and areas around the Mediterranean Rim can take the form of an increased demand for back-up in "area" projects in defined territories. *Imagine* is one of the tools available for such back-up. This article seeks to provide a synthesis of *Imagine*'s strengths as borne out by the feedback from its application in CDPs and to show the advantages of *Imagine* for designing "area" projects in defined territories by highlighting this method's adaptable or adjustable features that suit it for a range of issues and diverse regional contexts — including woodlands and forests.

The Blue Plan's systemic and predictive approaches

For more than twenty years, the Blue Plan's systemic and predictive approaches have been based on a study of the past, present and future impact of development on the environment and natural resources, in order to enhance the decision-making process. This means helping those responsible for managing a defined area first to acquire the tools for systemic and predictive analysis so that they can envisage future developments in the light of past and current tendencies, and then collectively to design and carry out action plans to obtain the sustainable results desired for the future. Predictive, proactive analysis, seeking to foresee the likely destiny of a defined area in the light of past and

Fig. 1 : The four stages of the *Imagine* method



present action and dynamics, represents an effective tool for facilitating decision-making: by imagining alternatives for the future (sustainable or not), this reasoning process of "backtracking" to generate hypotheses makes it possible to define the way forward to the desired future(s).

To investigate the interplay between development and the environment, the Blue Plan's predictive approach is based on i) an analysis of systems, and ii) the scenario method. First of all, by taking into account the interaction between the various interdependent elements involved, the systemic approach makes it possible to obtain an overall analysis of a whole territory and its likely future and to understand the processes connected to each element in the system and, above all, to the relationships and interaction between such elements. Thereafter, the scenario method makes it possible to envisage the future(s) for a system at the scale of a defined territory that will evolve constantly from its initial configuration. A scenario consists of this initial form, selected hypotheses for its evolution, a pathway to the chosen horizon and a vision of the final situation. All these stages are linked by a coherent, internal logic which derives from the hypotheses for evolution and their consequences ("If..., then..."). Building up scenarios provides the decision-makers and other people involved with a spectrum of possible alternatives along with different visions of the future which will enable them to better understand the issues and the risks involved in the tendencies observed and to define measurable goals for development over the short and middle terms.

With a view to improving, adapting and renewing predictive proactive tools, the Blue Plan, in association with Simon Bell (Open Systems Research Group, open University, G.-B.), has initiated, tested and made available the participatory *Imagine* method of systemic and predictive analysis of sustainability which is based on four main principles:

- The systemic approach enables people to view the defined area under study in its entirety, to share the collectively-built-up image of a defined area.
- Predictive, proactive analysis and the scenario method seek to orient strategy in the light of alternative visions of the future emerging from tendencies.

- The indicators and thresholds of sustainability serve to monitor and foresee evolution in the light of sustainable development.
- Participatory methods count on the skills and knowledge of locally-involved stakeholders and others in the conception and effective running of land use and development projects i.e. area projects for defined territories.

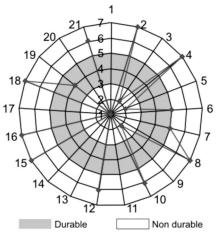
Imagine facilitates describing, assessing and exploring the degree of sustainability of a system in its past, present and future forms, using certain indicators and via four successive stages and five workshops, bringing together the stakeholders and others involved in the defined area concerned (Figure 1):

- 1.— Thinking about and understanding the local context and its main issues using various exercises (Blue Plan, 2006 Coudert and Larid, 2006).
- 2.— Linking up and studying the different interacting elements, identifying the key indicators of sustainability while clarifying their definition and assessing their degree of sustainability.
- 3.— Using graphs, modelling and investigating indicators of sustainability and imagining their future evolution using scenarios.
- 4.— Making suggestions and carrying out measures via an action and communications plan.

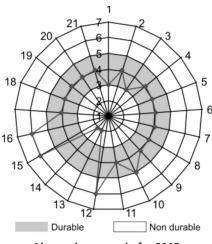
Figure 2 shows examples of graphs resulting from the scenario-modelling and investigative stage (stage 3): starting with a description of the system (stage 1), indicators of sustainability and the associated threshold levels — extreme and threshold sustainability levels based on excess or lack (stage 2) — are built up from graphs that give a vision of the present and possible future situations

Feedback: *Imagine* and the management of coastal areas

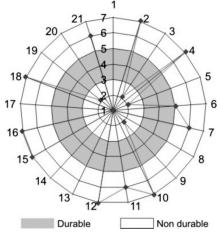
Imagine provides a participatory tool for assisting the decision-making process and has shown itself to be particularly well-adapted to the integrated management of Mediterranean coastal areas. The method has made it possible to mobilise and coalesce the skills and know-how of stakeholders and others actively involved locally in putting



Algerian coast: sustainability in 2004



Alternative scenario for 2015



Trend for 2015 scenario

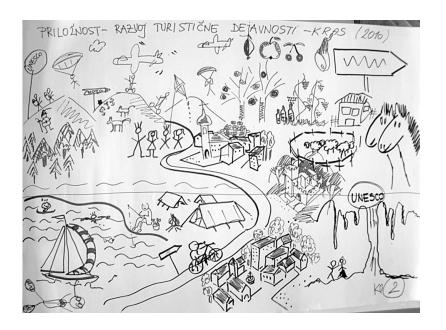
Fig. 2:
"Amoeba" graphs,
representing the present
situation and two
possible scenarios
for the future in the light
of previously-defined
criteria for sustainability

together collectively land use and development projects and define the action to be undertaken with a view to enhancing the sustainability of management for the defined areas concerned.

Imagine: working together for better decision-making, a tool that mobilises and breaks down sectorial barriers

In the light of the experience acquired with Imagine, coordinated by the Blue Plan, along with the opinions of local representatives of CDPs, it clearly emerges that it is crucial for stakeholders and other locals (decision-makers, managers, scientists, technicians, civil servants, professionals, representatives of wider society and economic sectors) to be involved, that people must be got together and different sectors and specialists work hand-in-hand. Within the framework of the CDPs, the Imagine method has a mobilising effect and breaks down barriers: the local workshops under Imagine's aegis provided what were rare opportunities for discussion and debate about common projects and problems. Their simple and convivial format made it easy to break the ice among participants and to calmly get to grips with the complexities of the systems of the given areas under study, using, for example, "fertile images" (Figure 3). These public forums for participation facilitated the pooling of

Fig. 3: Fertile image identifying the opportunities for tourist development around 2010 on the Slovenian coast.



issues of mutual concern and the emergence of a dynamic across sector boundaries. Thus, "the method has shown that it is capable of overcoming barriers between the work of the various stakeholders and others involved in the defined area, of getting them to work together to think about and define a common sustainable future, and of providing attractive information about complex situations [...]. The same method has shown that it can bring an enjoyable dimension to complicated and difficult tasks, that it fosters convivial relations and is applicable at different levels" (Report on the Imagine seminar, Blue Plan, 2008).

Imagine: flexible tool as facilitator in resolving conflict and help in decision-making

As a tool for help in decision-making, the predictive and proactive impetus of Imagine reveals further aspects of the context, evolution and perspectives of a defined area, on the basis of which decisions must be made. It also indicates the possible consequences of such decisions. Moreover, the forward -looking approach of the Blue Plan at the level of the defined area emphasises the social and institutional dimensions: the stakeholders and others involved themselves form the nucleus of reflection about how they interact together and the area-wide systems within which they evolve and interact. In this way, *Imagine* represents a facilitating tool for resolving conflict between different sectors. It does in fact appear important to understand (and help to resolve) such regular conflicts. It is equally vital to get an overview of the positions and strategies adopted by the various stakeholders and others involved in order to keep in mind the factors underlying inertia and recurring conflict throughout a defined area. The result of the whole undertaking should be to provide guidelines for change so that in the end, real alternatives emerge that can then be put into effect. The interactive participation of the various stakeholders and others involved -often in competition amongst themselves-, the facilitating of debate and the exchange of opinion, the attempt to define mutually-agreed language and compromise and interdisciplinary reflection are all constituents that, as complements to each other, make up a process that we will here call, as a first rough term, "participatory, predictive and proactive".

Imagine: a tool made to evolve

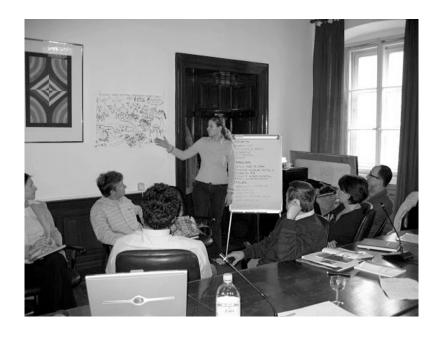
Though the implementation of the *Imagine* method has proved to be fruitful, and welcomed by most of those involved, it can nevertheless be improved. A certain number of pitfalls should be kept in mind in order to obtain ever-improved results in the future.

Concerning the participation of stakeholders and others involved, the changeover in participants from one workshop to the next was, over the longer term, a hindrance to group dynamics and the smooth running of the group. The disparities in the levels of power, influence and representation can also be a problem. On a different matter, continuous political back-up is an essential prerequisite if the predictive and proactive process is to achieve concrete results, notably through facilitating official acceptance of the action plans that emerge from the workshop sessions and, also, their requisite funding. And finally, the predictive, proactive undertaking would benefit from further input downstream by standardising follow-up and an evaluation of implementation, reinforced communication and media exposure, and effective exploitation of the results in other similar initiatives. Concerning the indicators of sustainability at the core of the process, some technical difficulties remain to be overcome: determining what length of time corresponds to a state of sustainability is sometimes a source of real disagreement; and it can be difficult to apply certain indicators (lack of data).

Imagine: an effective tool in undertaking the sustainable management of forested areas

The fact that Mediterranean forests and woodlands are multi-purpose (roles in ecology, wood and non-wood production, land-scapes, recreational areas..., roles at times in competition or in conflict with each other) and that key forestry matters are now integrated into the wider issues of environmental conservation and socio-economic development, means that the management of Mediterranean forests and woodlands demands a systemic approach. Such an approach requires not only enhanced collaboration between the forestry sector and those





others involved in the management of woodland areas (water, agriculture, energy, tourism, planning etc.); it also requires concertation between the various parties involved locally (forest landowners, livestock farmers, other farmers, environmental associations, elected representatives, managers of natural areas, the general public...). This situation obviously argues in favour of participatory modes of governance for rural areas. The time span necessarily involved in forestry management also tends towards a long-term vision.

Thus, there have emerged from the successes and failures of the various initiatives aiming at the sustainable management of forested areas, recurrent needs and expectations on the part of all those involved. These include: the participation of the maximum number of the relevant stakeholders and people involved, in order to get responses corresponding as perfectly as possible to

Fig. 4: Imagine workshops during the Coastal Development Programme in Slovenia

their preoccupations and to ensure that the project, or management action, is widely embraced; improvement in dialogue; and the breaking-down of barriers between the various sectors of activity. And all over the long term.

The *Imagine* method associates the obtaining of shared knowledge and understanding about a defined area within various time frames (initial diagnosis, scenarios for the middle and long terms) with the participation of the stakeholders and others involved, generally expert in local matters (collective learning process, broad discussion and reflection around agreed consensuses). In this way, the method now appears as a suitable tool for facilitating the implementation of sustainable management of woodlands and forested areas and, indeed, of rural areas in general. Though the method was originally developed for coastal regions and first applied there, it is flexible by its very nature and can be adjusted to handle a range of territorial contexts and issues, whether concerning the extent of the geographical area and the stakeholders to be taken into account, diagnostic assessment, indicators of sustainability and predictive scenarios which are built up locally, as well as the effective implementation of the adopted strategy and action which can call on suitable means for land use planning, development and management -in the case of forests, this might mean a regional nature park, a forest management charter or a master plan for a mountain massif. In the final analysis, it is up to the people involved in a particular woodland and forest area with a concern for the renewal and improvement of modes of governance there and for the requisite tools, who must take this systemic, proactive method to heart and get the utmost benefit out of it.

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Conclusion

As issues related to the environment and to sustainable development gain increasing attention, particularly the challenges of climate change, related social and political demands manifest themselves by greater public participation in debate and in the conception and implementation of long-term strategy for the defined area. In such a context, the Imagine method revolves around

two essential component features: a) the acquisition of knowledge and understanding, at the level of the given defined area and organised within different time frames (predictive proactive process, scenarios), and b) the participation of stakeholders and other parties concerned. The purpose here is to improve the knowledge and understanding needed for decision-making about long-term strategy through the use of the scenario method and, also, to reinforce the mobilisation of stakeholders and other local parties via collaborative work and a shared apprenticeship leading to a negotiated consensus. These approaches are valid not only for underpinning the sustainable management by the local communities of their areas or resources -a coast, a forest massif- but, also, in the wider perspective of regional development, notably for the reduction of the socioeconomic cleavages between the clearly-differentiated regions or regions with specialist activities (seaside regions developed for tourism or urbanised areas vs. natural or rural areas) or the reduction of poverty and inequality in a given defined area.

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